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09/852,744	05/11/2001	Joseph Frank Schober	06975-089001	4987

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EXAMINER

BARQADLE, YASIN M

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/852,744

Applicant(s)

SCHOBER ET AL.

Examiner

Yasin M. Barqadle

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) 17, 43 and 70 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-42, 44-69 and 71-81 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/10/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**Response to Amendment**

1. Applicant's arguments filed on January 10, 2005 have been fully considered but are not deemed to be persuasive...

- Claims 1-15, 17-42, 44-69 and 71-81 are presented for examination.
- Claims 16, 43 and 70 have been cancelled.

**Response to Amendment**

2. In response to Applicant's arguments in pages 17 and 18, that "Aharoni fails to describe or suggest selecting among content of varying formats to be communicated between the recipient and the provider *based on the available bandwidth*." Examiner contends that Aharoni teaches transporting video from video server to video client over a network channel, generating plurality of video frames, each frame being of a particular frame type, each frame type containing a particular amount of video content information, each frame comprising a plurality of levels, each level corresponding to a particular degree of compression, estimating the bandwidth of the network channel, determining the amount of video information waiting to be displayed at the video client, selecting one of the plurality of

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levels of each frame to send over the network channel in accordance with bandwidth estimate.. choosing which frames having a particular frame type to send over the network channel in accordance with the amount of video information and sending the chosen frames of a type containing higher amount of video data content and of selected level over the network channel utilizing reliable communication protocol, and sending the chosen frames of a type containing lower amount of video data content and of selected level over the network channel utilizing an unreliable communication protocol. (Col. 4, lines 35-65). In the above excerpt, Aharoni shows that the video content has different frame types (fig. 4 and fig. 8) where each frame type contains a particular amount of video content information requiring a particular degree of compression (formatting each frame with a particular compression and being of a particular type) to send over the appropriate network channel based on estimated bandwidth. See also col. 2, lines 54 to col. 3, lines 28). Furthermore, Aharoni teaches where the raw video source can be, for example, a non compressed AVI file, a non compressed QuickTime file or a compressed MPEG- audio/video file col. 8, lines 44-66). Therefore, Aharoni clearly teaches the limitation argued by the Applicant.

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As to applicant's arguments in page 17 second paragraph that " in one claimed implementation, for example, selecting among content of varying formats includes selecting between a still picture format and a video format depending upon the available bandwidth." It is noted that the features upon which applicant relies (i.e., selecting between a still picture format and a video format) are not recited in the rejected independent claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). However, Aharoni teaches choosing frames having a particular frame type containing higher amount of video data content and sending over the network channel utilizing reliable communication protocol, and sending the chosen frames of a type containing lower amount of video data content and of selected level over the network channel utilizing an unreliable communication protocol based on the available network bandwidth. (Col. 4, lines 35-65 and col. 7, lines 9-35).

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology/Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-15, 17-20, 22-42, 44-47, 49-69, 71-74 and 76-81 are rejected under 35 U.S.C. 102(e) as being anticipated by Aharoni et al USPN (6014694).

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As per claim 1, Aharoni et al teach a method of communicating content (fig. 1 and abstract), the method comprising:

automatically determining an available bandwidth (the network bandwidth is determined dynamically (col. 1, lines 58-61)) between a recipient and a provider (between the video server and the client (fig. 1) [col.2, lines 54-65 and col.3, lines 29-46];

selecting among content of varying formats to be communicated between the recipient and the provider based on the available bandwidth determined [video frames are selected to be communicated over the network channel in accordance with available bandwidth [col. 3, lines 9-28 and col. 4 lines 35-58]; and

communicating the content selected between the provider and the recipient [video data is transported to a video client col. 8, lines 2-7 and col. 3, lines 29-61].

As per claim 2, Aharoni et al teach the method of claim 1 wherein the available bandwidth is determined automatically using at least one iteration comprising:

transmitting a predetermined amount of data to the recipient [data packets are transmitted col. 3, lines 47 to col. 4, line 34];

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monitoring an amount of time taken for the predetermined amount of data to be received by the recipient [col. 3, lines 47 to col. 4, line 34 and col. 12, lines 49-65]; and

calculating the available bandwidth based on the predetermined amount of data and the amount of time taken for the data to be received by the recipient [measuring available bandwidth based on transmitted packet results col. 3, lines 47 to col. 4, line 34 and col. 12, lines 49-65].

As per claim 3, Aharoni et al teach the method of claim 2 wherein transmitting the data comprises transmitting an amount of data determined based on a prediction of a communication device used by the recipient to communicate [col. 7, lines 7-35 and col. 12, lines 27-41].

As per claim 4, Aharoni et al teach the method of claim 2 wherein automatically determining the available bandwidth further comprises:

transmitting information indicating the amount of data being communicated to the recipient [col. 3, lines 47 to col. 4, line 34 and col. 12, lines 49-65], wherein calculating the available bandwidth comprises calculating the available bandwidth at the recipient based on the information indicating



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the amount of data communicated and the amount of time for the transmission [col. 3, lines 47 to col. 4, line 34 and col. 12, lines 49-65].

As per claim 5, Aharoni et al teach the method of claim 2 wherein calculating the available bandwidth comprises calculating the available bandwidth at the provider based on the amount of data and the amount of time for the transmission [col. 3, lines 47 to col. 4, line 34 and col. 12, lines 49-65].

As per claim 6, Aharoni et al teach the method of claim 1 wherein automatically determining the available bandwidth comprises:

- transmitting a predetermined amount of data to the recipient [col. 3, lines 47 to col. 4, line 34],

- re-transmitting the predetermined amount of data to the provider [col. 3, lines 47 to col. 4, line 34];

- monitoring an amount of time taken for the predetermined amount of data to be received by the recipient, re-transmitted to the provider, and received by the provider [col. 3, lines 47 to col. 4, line 34 and col. 12, lines 56-66]; and

- calculating the available bandwidth based on the predetermined amount of data and the amount of time taken for

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the data to be received by the recipient, re-transmitted to the provider, and received by the provider [col. 3, lines 47 to col. 4, line 34 and col. 13, lines 12-49].

As per claim 7, Aharoni et al teach the method of claim 6 wherein automatically determining the available bandwidth further comprises:

transmitting information indicating the amount of data being communicated to the recipient [col. 3, lines 47 to col. 4, line 34],

wherein calculating the available bandwidth comprises calculating the available bandwidth at the recipient based on the information indicating the amount of data communicated and the amount of time taken for the data to be received by the recipient, re-transmitted to the provider, and received by the provider [col. 3, lines 47 to col. 4, line 34].

As per claim 8, Aharoni et al teach the method of claim 6 wherein calculating the available bandwidth comprises calculating the available bandwidth at the provider based on the amount of data and the amount of time taken for the data to be received by the recipient, re-transmitted to the provider, and received by the provider [col. 3, lines 47 to col. 4, line 58].

As per claim 9, Aharoni et al teach the method of claim 2 wherein automatically determining the available bandwidth further comprises:

adjusting the predetermined amount of data based on the available bandwidth calculated [col. 11, lines 27-44]; and

repeating the iteration using the adjusted predetermined amount of data [col. 11, lines 27-44].

As per claim 10, Aharoni et al teach the method of claim 9 wherein adjusting the predetermined amount of data comprises increasing the predetermined amount of data [col. 11, lines 27-44 and col. 3, lines 47 to col. 4, line 34].

As per claim 11, Aharoni et al teach the method of claim 9 wherein adjusting the predetermined amount of data comprises decreasing the predetermined amount of data [col. 3, lines 47 to col. 4, line 34].

As per claim 12, Aharoni et al teach the method of claim 1 wherein automatically determining the available bandwidth comprises automatically detecting the available bandwidth between the recipient and the provider [col. 13, lines 12-66 and col. 14, lines 46-62].

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As per claim 13, Aharoni et al teach the method of claim 1 wherein automatically determining the available bandwidth is performed when the recipient initially establishes communications with the provider [col. 15, lines 8-65].

As per claim 14, Aharoni et al teach the method of claim 1 wherein automatically determining the available bandwidth is performed when the recipient requests content from the provider after the recipient initially establishes communications with the provider [col. 15, lines 8 to col. 16, lines 23].

As per claim 15, Aharoni et al teach the method of claim 1 wherein selecting content comprises selecting among content of varying richnesses based on the available bandwidth determined [col. 3, lines 9-28 and col. 4 lines 35-58].

As per claim 17, Aharoni et al teach the method of claim 1 wherein selecting among content of varying formats comprises selecting between at least content in a still picture format and content in a video format depending upon the available bandwidth determined [col. 3, lines 9-28; col. 4 lines 35-58 and col. 6, lines 46-66].

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As per claim 18, Aharoni et al teach the method of claim 1 wherein the recipient is a client and the provider is a host [col. 7, lines 7-35].

As per claim 19, Aharoni et al teach the method of claim 1 wherein the recipient is a host and the provider is a client [col. 7, lines 7-11 and 44-57].

As per claim 20, Aharoni et al teach the method of claim 1 wherein the recipient and the provider are both client devices [col. 7, lines 7-11 and 44-57].

As per claim 22, Aharoni et al teach the method of claim 1 wherein automatically determining an available bandwidth includes automatically detecting the available bandwidth several times during one communication session between the recipient and the provider [col. 13, lines 12-66 and col. 14, lines 46-62].

As per claim 23, Aharoni et al teach the method of claim 1 wherein automatically determining an available bandwidth includes automatically determining the available bandwidth over a channel accommodating communications from the recipient to the provider and separately automatically determining the available

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bandwidth over a channel accommodating communications from the provider to the recipient [col. 3, lines 47 to col. 4, line 34 and col. 14, lines 46-62].

As per claim 24, Aharoni et al teach the method of claim 1 wherein automatically determining an available bandwidth includes automatically determining the available bandwidth over multiple channels between the recipient and the provider [col. 3, lines 47 to col. 4, line 34].

As per claim 25, Aharoni et al teach the method of claim 24 wherein automatically determining the available bandwidth over multiple channels includes automatically determining the available bandwidth simultaneously over multiple channels between the recipient and the provider [col. 3, lines 47 to col. 4, line 34 and col. 19, lines 23-42].

As per claim 26 Aharoni et al teach the method of claim 24 further comprising selecting differing content to be communicated over the multiple channels between the recipient and the provider based on the available bandwidth determined over the multiple channels [col. 3, lines 47 to col. 4, line 34 and col. 19, lines 23-42].

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As per claim 27, Aharoni et al teach the method of claim 1 wherein automatically determining an available bandwidth includes automatically determining the available bandwidth simultaneously from the provider to the recipient and from the recipient to the provider [col. 3, lines 47 to col. 4, line 58 and col. 19, lines 23-42].

As per claim 28 and 55, these are a system and a computer program claims with similar limitations as explained in claim 1 above. Therefore, they are rejected with the same rationale. See the computer program with computer code segments as implemented in figs 11-12 and fig. 15].

As per claims 29-38 and 56-63, these claims correspond to rejected claims 2-11 above. Therefore, they are rejected with the same rationale. See claims 2-11 above.

As per claim 39 and 66, Aharoni et al teach the invention wherein the automatic determining code segment comprises an automatic detecting code segment that causes the computer to automatically detect the available bandwidth between the recipient and the provider [col. 13, lines 12-66 and col. 14, lines 46-62].

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As per claim 40 and 67, Aharoni et al teach the invention wherein the automatic determining code segment causes the computer to determine automatically the available bandwidth when the recipient initially establishes communications with the provider [col. 15, lines 8-65].

As per claim 41 and 68, Aharoni et al teach the invention wherein the automatic determining code segment causes the computer to determine automatically the available bandwidth when the recipient requests content from the provider after the recipient initially establishes communications with the provider [col. 15, lines 8 to col. 16, lines 23].

As per claim 42 and 69, Aharoni et al teach the invention wherein the selecting code segment causes the computer to select among content of varying richnesses based on the available bandwidth determined [col. 3, lines 9-28 and col. 4 lines 35-58].

As per claim 44 and 71, Aharoni et al teach the invention wherein the selecting code segment causes the computer to select between at least content in a still picture format and content in a video format depending upon the available bandwidth



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determined [col. 3, lines 9-28; col. 4 lines 35-58 and col. 8, lines 44 to col. 9, line 35].

As per claim 45 and 72, Aharoni et al teach the invention wherein the recipient is a client and the provider is a host [col. 7, lines 7-35].

As per claim 46 and 73, Aharoni et al teach the invention wherein the recipient is a host and the provider is a client [fig. 1-2, col. 7, lines 7-11 and 44-57].

As per claim 47 and 74, Aharoni et al teach the invention wherein the recipient and the provider are both client devices [col. 7, lines 7-11 and 44-57].

As per claim 49 and 76, Aharoni et al teach the invention wherein the automatic determining code segment causes the computer to detect automatically the available bandwidth several times during one communication session between the recipient and the provider [col. 13, lines 12-66 and col. 14, lines 46-62].

As per claim 50 and 77, Aharoni et al teach the invention wherein the automatic determining code segment causes the

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computer to determine automatically the available bandwidth over a channel accommodating communications from the recipient to the provider and separately to determine automatically the available bandwidth over a channel accommodating communications from the provider to the recipient [col. 3, lines 47 to col. 4, line 34 and col. 14, lines 46-62].

As per claim 51 and 78, Aharoni et al teach the invention wherein the automatic determining code segment causes the computer to determine automatically the available bandwidth over multiple channels between the recipient and the provider [col. 3, lines 47 to col. 4, line 34].

As per claim 52 and 79, Aharoni et al teach the invention wherein the automatic determining code segment causes the computer to determine automatically the available bandwidth simultaneously over multiple channels between the recipient and the provider [col. 3, lines 47 to col. 4, line 34 and col. 19, lines 23-42].

As per claim 53 and 80, Aharoni et al teach the invention wherein the selecting code segment causes the computer to select differing content to be communicated over the multiple channels

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between the recipient and the provider based on the available bandwidth determined over the multiple channels [col. 3, lines 47 to col. 4, line 58 and col. 19, lines 23-42].

As per claim 54 and 81, Aharoni et al teach the invention wherein automatically determining an available bandwidth includes automatically determining the available bandwidth simultaneously from the provider to the recipient and from the recipient to the provider [col. 3, lines 47 to col. 4, line 58 and col. 19, lines 23-42].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 21, 48 and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aharoni et al USPN (6014694) in view of Gupta et al USPN (6622171).

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As per claims 21, 48 and 75, although Aharoni et al shows substantial features of the claimed invention as explained in claims 1, 28 and 55, he does not explicitly show a recipient and a provider that are both capable of peer-to-peer communications. Nonetheless, this feature is well known in the art and would have been an obvious modification of the system disclosed by Aharoni et al, as evidenced by Gupta et al USPN. (6622171).

In analogous art, Gupta et al whose invention is about a client/server system for determining the available bandwidth between the client and the server (col. 11, lines 48-53), disclose a recipient and a provider (client and server) that are both capable of peer-to-peer communications [col. 5, lines 24-31]. Giving the teaching of Gupta et al, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Aharoni et al by employing the system of Gupta et al for the advantage of efficiently transferring digital files from a sending node to a receiving node over a network.

### Conclusion

5. **ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 571-272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.

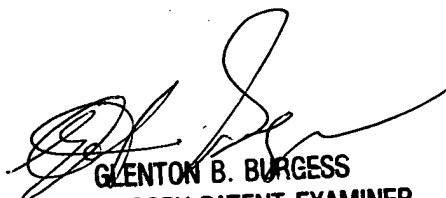
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Yasin Barqadle

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